

REMARKSSpecification

Applicants have provided an amendment to the specification, even though the error sought to be corrected was not in the specification as filed. Neither was the reference referred to provided by an Information Disclosure Statement, but rather was an Examiner-noted reference. The correction requested is the simple change of one letter in an acronym in the title of a reference. For an issued patent, Applicants would have sought a Certificate of Correction. However, for a reissue application a Certificate of Correction is probably not applicable and in any event it would be better to correct this small error on the face of the reissue patent when issued. Applicants considered filing a corrected Information Disclosure Statement, but since there never was an IDS to correct this avenue seems inapposite. Undersigned counsel can think of no other formal way of requesting this correction. Applicants therefore request that the Patent Office administratively correct this error when this case goes to issue.

Claims

Applicants and counsel wish to express their sincere thanks to the Examiner for the gracious and productive interview that Examiner conducted with counsel and one of the applicants on December 20, 2005. Examiner's Interview Summary made of record in this case sets forth the summary of the Interview proceedings. The independent claims as amended herein were agreed to, subject to review in the Patent Office by supervisory personnel.

Claims 1 through 25 remain in the case. Claims 1 through 11 have been allowed. Claims 12 through 25 have been rejected. Claims 12 and 22 are being amended herewith. Otherwise the rejection from the Office Action is respectfully traversed, for the reasons stated

below. Applicants are adding new Claims 26 through 39, also for reasons stated below relating to the foregoing rejection and respectfully requests their entry. Reconsideration and further examination are also respectfully requested.

Undersigned counsel acknowledges that at the latest before a Notice of Allowance can be issued the claims must be placed in the exact format required by 37 C.F.R. § 1.173(d) for publication. However, counsel was of the opinion that the more customary marking during prosecution, coupled with a more detailed indication of provenance for changes to claims in the status parenthesis accompanying each claim, would facilitate prosecution. Counsel is prepared to furnish a conforming version of all claims at the earliest event of the following: a formal or informal request by Examiner, a Notice of Non-Conforming Amendment, or a Notice of Allowability.

Examiner rejected Claims 12 through 25 on five separate bases, all of which nonetheless rest on the conclusion that the subject matter claimed in the subject claims is non-statutory under 35 U.S.C. § 101. Paragraph 2 of the Office Action states that the Claims are not limited to a practical application. Paragraph 3 states that the claims are drawn to non-functional descriptive material. Paragraph 4 again states that the claims are drawn to non-functional descriptive material in that there is no functional relationship to a computing machine. Paragraph 5 states that the claims manipulate data or solve a mathematical problem without a limitation to a practical application in the technological arts. Paragraph 6 states that the claims are drawn to functional descriptive material not residing on a computer readable medium.

Applicants believe that the relevant rejections are those in Paragraphs 2 and 5 having to do with limitation to a practical application. Paragraphs 3, 4, and 6 relate to data structures. Applicants believe that the claims of this application do not involve data structures

per se, but rather steps in a process, notwithstanding that the latter may involve use of data.

Accordingly, Applicants respectfully suggest that Paragraphs 3, 4, and 6 are irrelevant and should be withdrawn as bases for rejection.

Claims 13 through 25 are dependent, either directly or indirectly, on Claim 12. In order to overcome the statutory subject matter rejections stated in Paragraphs 2 and 5 of the Office Action, Applicants have amended Claim 12 to make unmistakable that the claims cover statutory subject matter, that is, transformation of digital images. These claims track as closely as possible the language of Claims 1, 8, 9, and 10, which Examiner has already implicitly recognized as claiming statutory subject matter. The limitations of Claims 12 through 25 are steps in a process, and instructions regarding the interrelations among those steps, operating on digital versions of two dimensional images originating in the real world, are not disembodied mathematical operations. (Applicants have amended Claim 22 to remove superfluous words, but the substance is unchanged.) Applicants therefore respectfully request that the Examiner also withdraw Paragraphs 2 and 5 grounds of rejection.

Claim 26 is an effort to state a more generalized version of the transforming method of Claim 12. Claim 12 is limited to use of a two dimensional window to select a block of intensities for transforming. Claim 26 attempts to capture the use of this method on generalized signals representing physical quantities, whether images or not. Dependent Claims 27 through 39 are substantially identical versions of dependent Claims 13 through 25, but now dependent on Claim 26.

It is apparent to the person of ordinary skill in the art of digital signal processing that the core of the method set forth in the instant specification can be used more generally than is captured in Claim 12. In particular, it is well known in the art of digital signal processing that

the processing of, for example, arrays of intensities representing two-dimensional images, that is, amplitudes from digital photographs and the like, are really processed either by transmitters or by computers or DSP chips sequentially. That is, for example, an $M \times M$ matrix of intensities from a digital image may be processed sequentially row by row or column by column. Anyone who has written a computer program knows that the computer performs an operation on one intensity, then sequentially on another intensity, and so on, even when performing, for example, matrix multiplication. Analogously, even when transmitting a digital image, the transmission apparatus sequentially transmits and the reception apparatus sequentially receives intensity by intensity, even if the collection of those intensities is thought of as a two dimensional matrix.

In addition, it would be apparent to one of ordinary skill in the art that the methods disclosed in the instant specification can be used on a wide variety of signals. Such signals could encompass, for example, audio signals, comprising only one dimension in matrix terminology, multimedia signals, comprising a collection of digital images, audio signals, text or numerical signals, and other material. Finally, radar signals, even though transmitted and received sequentially, are often thought of as three dimensional signals, since they can represent height as well as distance and azimuth. In truth, in the actual engineering sphere, all of these signals have inherently one dimension or are transformed in some way into a one dimensional sequence before application of the method of this application. Applicants believe that Claim 26 and dependent Claims 27 through 39 now make clear that the intensities representing physical quantities such as brightness or color in an image being transformed are substantially always presented to the apparatus implementing the method being claimed as a one-dimensional stream of information.

CONCLUSION

Applicants request that the Office debit Burns & Levinson LLP's Deposit Account, Number 502383, for the additional claim fees. Applicants believe that they have made a diligent effort to place all claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Frederick C. Williams, Applicants' Attorney, at (202) 842-0445 so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully submitted,

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Date

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